GEOGRAPHIC SCHOOL BULLETINS

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VOLUME XXXVI, NUMBER 18, FEBRUARY 17, 1958 . . . *To Know This World, Its Life*

USMC, BY DAVID DOUGLAS DUNCAN

TOGETHERNESS is more than a word to Okinawa infants. Toted everywhere, they seldom cry.

- Pacific Chain of Defense
- Okinawa—The Chafing Link
- George Washington's Travels
- Intracoastal Waterway
- Corkscrew Swamp

NEXT WEEK: *Natural crossroads play a leading role in the drama of human geography. Cities stand where animal trails crossed and primitive men met.*

itself. American soldiers, sailors, and airmen consider Japan "good duty." Yet the Korean conflict taught them that sentinels must be alert.

At any of some 18 air bases, sleek, silver fighter-interceptors squat on the tarmac, ready to scream skyward in an instant. Crew-cut young men in blue coveralls sprawl around their ready room, talking, playing cards, napping on cots, writing letters. Each has an ear cocked for the clamor of a bell. Should it sound —and it sounds frequently for practice—cards and letter paper scatter as the pilots sprint for the flight line. Windows shake as the blasting jet engines snatch the planes off the ground.

Few airstrips are far removed from towns. The shattering noise of take-offs brings complaints. Squadron commanders must also serve to explain the need for inconvenience. One colonel summed it up succinctly. "Vladivostock is only 75 minutes away," he told protesting Japanese. Realizing that the Americans were guarding them as well as the United States, the Japanese protested no more.

Formosa

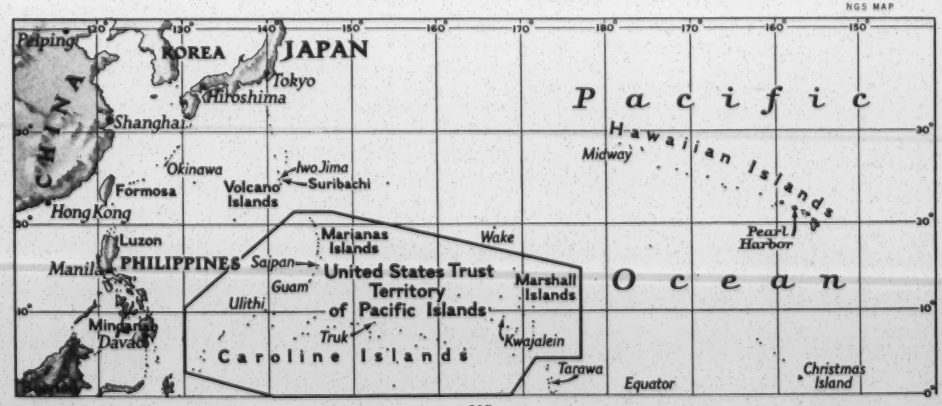
Japan, lying 75 jet-flown minutes away from communism, is a rear-guard area compared to Formosa. The Nationalist Chinese bastion is less than 100 miles from the communist mainland of China. Bombers or fighters could hop the strait in a mere 15 minutes with "no sweat," as Air Force pilots say. In the northern half of the island, air bases are being built or improved. Their primary function is to serve the Free China Air Force. But the United States reserves the right to use them if necessary.

Philippines

On July 4, 1946, the United States granted the Philippines independence. Less than a year later the two nations signed a 99-year military base agreement allowing the United States to keep the use of certain bases and acquire others if need be. Thus the United States Air Force still uses Clark Field, Manila, from where it flew into action in December, 1941. The Navy still repairs ships and facilities, and stores ammunition and supplies at Subic Bay, north of historic Bataan Peninsula.

Luzon, northernmost of the major Philippine Islands, is only an hour's flight from China. Mindanao, the southernmost, is close to turbulent Indonesia. Due west lie the lands of Indochina—Viet Nam, Cambodia, and Laos—where communist pressure is constantly felt. This is the world's wavering corner. The Philippine Island bases watch it.—E.P.

About halfway beween Japan and Formosa lies Okinawa. For a full story on this vital fortress in the string of Pacific outposts, turn the page.



Pacific's Armored Outposts

U.S. ARMY

TWO things seem able to change the face of a Pacific island overnight. One is a typhoon, the other an American Seabee. Guam, above, shows the touch of the Seabee.

Thanks largely to men of the Navy's construction battalions, the tiny mid-Pacific island bristles with defense installations. Airstrips slash its surface. Breakwaters embrace its coves. Docks jut from its shore line. Barracks, warehouses, and depots march across its grassy meadows. Naval vessels cluster off its beaches like bees around a hive.

Southernmost of the Marianas, Guam lies 1,780 miles from the nearest shore of communist China. It serves as a hub to the arc of defensive bases that string through Japan, Okinawa, Formosa, and the Philippines—the American "front line." The United States was given control of Guam by the Treaty of Paris, 1898, which ended the Spanish-American War. Japanese forces seized it five days after the attack on Pearl Harbor in 1941. Americans recaptured it in 1944.

Guam's area is about a sixth that of Rhode Island. But on this tiny patch of coral are two Strategic Air Command Bases and heavy Naval installations. Guamanians enjoy full American citizenship. They have a coconut economy, exporting copra and coconut oil. Like Filipinos, they use the carabao as a beast-of-all-work.

Guam is the way station and assembly point between the mighty defensive resources of Hawaii and the threat in Asia.

Japan

Terms of the peace treaty that ended World War II gave the United States the right to maintain bases in Japan until the island nation is able to defend

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American dollars have raised dams for irrigation, strung power lines, built hospitals and schools, created water systems, erected commercial docks, and inaugurated a bus service. Most of the 600,000 Okinawans now live in adequate houses. One out of five works for the American military establishment. More than 11,000 autos—owned about equally by Okinawans and Americans—roll at a sedate, enforced 30 miles an hour along smooth four-lane highways. A brand-new University of the Ryukyus has sprung up in modern dress on a hilltop where fighting raged 13 years ago.

Island fishermen now work deep water with new, sturdier boats. Island industries produce bricks, tile, and pottery, or lighter goods like straw mats, wooden shoes, and lacquerware. Sugar cane refineries grind brown sugar for export. But the island lacks natural resources and cannot sustain itself without imports. They exceed exports five to one.

The farmer, mainstay of the economy, is little touched by industry's birth pangs. Barefooted in his field, he hoes rice, sweet potatoes, or soybeans with a *kuwa*, a solid-bladed hoe with a thick handle. For plowing and harrowing, he uses oxen. His wife may raise pigs to sell or slaughter. A weather-seamed farmer like the one at right lives close to nature. He builds his house low to the ground, encircling it with rock walls and banks of shrubbery—protection against Okinawa's notorious typhoons. Native trees and shrubs yield thatching for his roof, wood for walls and floor. He cuts reeds to make his own sandals and clogs. He hacks out armloads of underbrush and burns it for fuel. His wife weaves rice stalks into baskets. Not long ago she would have fashioned clothes from leaves. The farmer's level of living, although low by Western standards, compares favorably with many Asian lands. He used to eat mostly sweet potatoes and sell what rice he grew. Now at least part of his rice crop is apt to go to his stomach—a sign of better times.

USMC, BY DAVID DOUGLAS DUNCAN

Americans and Okinawans may be far apart in economic attainment. But they are discovering cultural meeting grounds. Japaneselike customs have begun to rub off on visiting Americans. In the *National Geographic Magazine*, February 1955, Hope A. Diffenderfer, the wife of a civil administration official, tells how she and her family adopted local habits like removing their shoes before entering the house, using chopsticks for various dishes, and carrying the baby strapped to the back. Life on Okinawa was portrayed to the outside world in the recent play, "Teahouse of the August Moon"—a smash hit on Broadway.

For their part, many Okinawans learn trades under American supervision. They are trying democracy on to see if it fits. As the Okinawan Chief Executive says: "Okinawans most eager to be educated."—A.P.M.

UMI

RAE GILMAN

THE FARMER working his rice paddy remains the symbol of Okinawa's rural economy

OKINAWA—The Chafing Link

A KEY link in the chain of Pacific bases is Okinawa. A rough-hewn island of limestone and clay, it is actually the peak of a mountain rising from deep in the Pacific. It perches midway up the Ryukyus—the ladder of islands that stretches from Formosa to Japan. Thus Okinawa guards the gateway to the East China Sea, some 400 miles from the bulging coast of China.

Silver-sided B-52 and B-47 bombers howl off 9,000-foot-long runways at Kadena Air Force Base. Marines, tough and alert, train in the hills. They need only an order to send them hustling immediately to any Far Eastern trouble spot. Prowling warships slip in and out of spacious Buckner Bay, named for the leader of the expeditionary force that captured the island in World War II.

American forces have occupied Okinawa since that final, fierce battle of the Pacific campaign. More than 12,000 American men gave their lives along the beaches and on the mountains. Another 37,000 were wounded. Bombardment and ground fighting left the green isle stripped brown, its capital at Naha leveled. At least 50,000 Okinawan civilians were killed or wounded. Survivors holed up in caves.

The peace treaty sliced Okinawa from the former Japanese Empire. The United States did not annex the island, desiring no permanent territorial gain from the war. Instead, the United States recognizes the "residual sovereignty" of Japan over the Ryukyus. But Americans want to keep control of this Pacific bastion "so long as conditions of threat and tension exist in the Far East."

Political storm clouds have mushroomed over Okinawa—partly because of the island's indefinite status, partly because of a clash of cultures. In a recent election, freely held, 70,000 voters in Naha chose an anti-American mayor.

Okinawans had never voted before the Americans came—or listened to campaign oratory. They were swayed by candidates shouting that United States forces had usurped one-fifth of the island's arable land; that the Ryukyus should be returned to Japan; that Americans had robbed Okinawa of its political freedom.

Ironically, Okinawans would never have heard such claims had the Americans not handed them political freedom and full citizenship for the first time in their history.

Despite restless politics, Okinawa today is better off economically than at any previous time. A battle-weary Marine of 1945 wouldn't recognize the place.

through the pine forests of North Carolina, through sparsely settled villages. Washington chuckled at one typical back-country reception—"We were received at this place by as good a salute as could be given by one piece of artillery."

Charleston, South Carolina, famed for social affairs, outdid itself in welcoming the President. He crossed from Haddrel's Point to Charleston harbor in a 12-oared barge rowed by sea captains. Two boatloads of musicians blared in competition with thundering cannon. Washington took scrupulous pains not to

CURRIER & IVES

cause any private family expense in entertaining or lodging him. Nevertheless, he whirled off on a social merry-go-round that tested his endurance. He held two formal breakfasts, three receptions, seven state dinners, attended two assemblies, a concert, a fireworks display, and two church services. He sipped 60 toasts and met "a great number of the most respectable ladies of Charleston."

And so on into Georgia, to Savannah and Augusta, amid cheers and cannonades and flowery speeches. A strong man still at 59, the first President vastly enjoyed himself. In his diary he often noted the exact number of "elegantly dressed and handsome ladies" that appeared at receptions or danced at balls. He also took time to visit battlefields where the fate of the young nation had been decided. Like any old soldier, he would go over the ground, reviewing tactics, conjecturing what would have happened if . . . .

He noticed one other thing on his 1,887-mile southern tour. His farmer's eye saw thin, sandy soil along the coastal plain and even inland. The West must be the place for expansion. He could still remember fertile meadows beyond the Appalachians—the wild, alluring land that he had explored in his youth.—S.H.

UMI

Well-Traveled Washington

Pace-Setting First President

EVEN in the age of television, members of Congress face miles of travel during this election year. Bolstering their campaigns, the President himself will appear at functions throughout the country. This is his chance to expound policies—also to feel the nation's pulse.

So continues the presidential habit of going to the people—a tradition begun by George Washington. Though he had no need to harvest votes, the first President traveled afar, seeking firsthand views of how citizens regarded their new government.

New England, birthplace of the Revolution, was Washington's first target. He set forth in October, 1789, six months after his first inauguration. With him went a modest retinue, including six servants. On the way north from New York (then the nation's capital), Washington electrified crowds in Connecticut. Stamford and Fairfield cheered him through town. New Haven turned out all its 4,000 citizens and 120 Yale students. Prancing hoofs of the Hartford Light Horse drummed him through the State capital.

In Massachusetts, Washington paused to inspect government stores at Springfield, then journeyed on to Cambridge where he had taken command of the Revolutionary troops in 1775. Militiamen lined up to greet him. Historians note that they formed sloppily as if to stir memories of the lackadaisical discipline of 14 years before. Boston was bedecked with banners—"To the Man who unites all hearts" and "To Columbia's favorite Son." Usually embarrassed by too much adoration, Washington apparently relished the attention. He noted "an ode composed in honor of the President and well sung by a band of select singers; after this three Cheers . . . "

He continued north to New Hampshire where Portsmouth turned itself inside out, meeting him with troops of cavalry. Officers wore their locally manufactured uniforms—white and red. He sailed in the harbor, then landed at Kittery, Maine, and went fishing—as many another President has done. And again like many later Presidents, Washington had little luck with hook and line.

On his New England tour, Washington spent 29 days of rough travel over miserable roads. But if anyone could take travel, he could. During his youthful frontier days, the husky Virginian sometimes rode 35 miles a day for more than a week at a stretch—along the merest trails.

The New England tour was so successful that a new one was demanded—into the farther removed South. How felt Virginians, Carolinians, distant Georgians toward their central government? Washington set out on April 7, 1791, to see for himself. "My equipage and attendance consisted of a Charriot and four horses drove in hand—a light baggage Waggon and two horses—four saddle horses besides a led one for myself—and five—to wit; my Valet de Chambre, two footmen, Coachmen and postilion."

Farmers gaped at the array, trotting down Maryland's Eastern Shore to cross Chesapeake Bay to Annapolis. The boat grounded and Washington had to spend the night aboard—cramped into a berth far too small for his towering height. He paused at Georgetown to discuss the projected Federal City which would later bear his name. He even managed to make a brief visit at his beloved Mount Vernon.

Saluting artillery sent echoes rocking as he dipped into Virginia, to Fredericksburg—dear to his childhood—to Richmond and Petersburg. The cavalcade wound

ROBERT F. SISSON, NATIONAL GEOGRAPHIC STAFF

CAPE COD CANAL, built to provide inshore route for freighters to bypass outer Cape's winds and currents, comes as dividend for waterway voyagers. To the south you'll see brawny merchantmen being nudged out of their berths in Baltimore's harbor, second busiest in foreign trade after New York.

A. AUBREY BODINE

peake and Delaware Canal. This sea-level watercourse, some 19 miles long, takes you through open fields and marshlands to Chesapeake Bay. Baltimore bustles off your right hand as you steer down the Bay, avoiding the wash of laden ships. You pass the mouth of the Severn River and may enter it to glimpse the harbor-hugging buildings of the United States Naval Academy.

History rings in the names of other river mouths—Potomac, Rappahannock, York, James—as you aim for Norfolk, Virginia. Your boat wallows past gigantic, grey-flanked fighting ships anchored in Hampton Roads. Here you have a choice of watery routes. You can steer easterly, then southerly past Currituck, North Carolina, and into Albemarle Sound. Or you can bear south through the Dismal Swamp Canal. The

J. BAYLOR ROBERTS, NATIONAL GEOGRAPHIC STAFF

DISMAL SWAMP once covered an area larger than Delaware. Today it is only a fifth of its former size—not because of George Washington's "Adventurers for Draining the Great Dismal Swamp" but because of a falling water table. Numerous ditches have been hacked through the wild morass. One, 12 feet wide, was dug by Washington's company and bears his name. It may be the oldest usable canal in the nation.

Devotees have urged that the swamp be made a national forest. Businessmen still want to exploit it. But it remains an eerie region, haunted by memories of duels fought in its glades, of runaway slaves that hid in its recesses.

Boston to Key West by

Sheltered Seaway

ON HIS travels, George Washington usually cocked an eye to the commercial possibilities of his country. Dismal Swamp, in eastern Virginia and North Carolina, intrigued him by its wealth of timber. He thought about draining the morass, even joined a company for that purpose. He also envisioned a canal through the swamp to link Virginia's Hampton Roads with North Carolina's Albemarle Sound.

That dream came true. Dismal Swamp Canal (left) is a 22-mile reality—part of a 3,000-mile system of sheltered waterways that Washington never would have dared hope for. It's called the Intracoastal Waterway.

Put yourself on a small boat in Boston Harbor. Destination: Key West. Prepare for adventure, for your voyage will lead you through narrow canals and bays as wide as Chesapeake. You'll toss in the wash from small barges and tankers, yachts and outboard cruisers. You'll feast your eyes on varied coastlines where the early United States was cradled.

Well provisioned, you cast off. Your craft rolls down Massachusetts Bay. Off the starboard bow stands Plymouth of Pilgrim fame. You're sheltered by the beckoning finger of Cape Cod. Near its knuckle, you slip through Cape Cod Canal into Buzzards Bay.

Now, batten down. You ride the open Atlantic for a spell. Off starboard stand Newport's mansions. Block Island rises to port. Sea winds trail you into Long Island's sheltered Great Peconic Bay, then along the outer banks past Fire Islands. You buck across the churned-up waves of New York Harbor, skim past Staten Island, and reach the Raritan River. A canal takes you across New Jersey to Trenton where you meet the Delaware River.

You glide down this broad stream past smoky industrial sections of Philadelphia, past freighters and barges, to the Chesa-

first president of the American Telephone and Telegraph Company, to listen in.

Frayed edges of marshes stir in the wind south of Jekyll. Perhaps you will hurry past Fernandina, Florida's northernmost port. Pleasure craft may hardly rest beside so many shrimping boats and others. But you might see, near sunset, big sea turtles enter the Amelia River to feed. Then comes Jacksonville, Florida's third largest city after Miami and Tampa. It hugs the St. Johns River nearly 15 miles west of the waterway.

Water-borne tourists are popular in St. Augustine, oldest permanent white settlement in the United States. You may quit your boat momentarily to sightsee from a horse-drawn carriage. Ponce de Leon prowled this coast in 1513. Don Pedro Menendez de Aviles founded the city in 1565. Sir Francis Drake burned it in 1586.

You set off again, southeasterly down the coast to sparkling Daytona Beach—a Florida resort with a difference. It attracts more visitors in summer than in winter. Its 23-mile strip of sand is hard enough for cars to test speed. You pass inside Cape Canaveral. A distant rumble and a rising streak of light would tell you that another satellite is roaring into orbit from Patrick Air Force Missile Test Center. You make Vero Beach, far down the State. Indian River's jungle gardens demand a halt. Six continents contributed such oddities as African sausage trees, Egyptian papyrus, gooseflowers from Guatemala, and Chilean monkey puzzle trees. Armadillos, otters, and raccoons roam about. Farther along, you stare at the luxurious hotels of Miami Beach—then move into wide Biscayne Bay, remindful of the ride down the Chesapeake so many days behind. You follow the Gulf coasts of the Florida Keys into Key West.

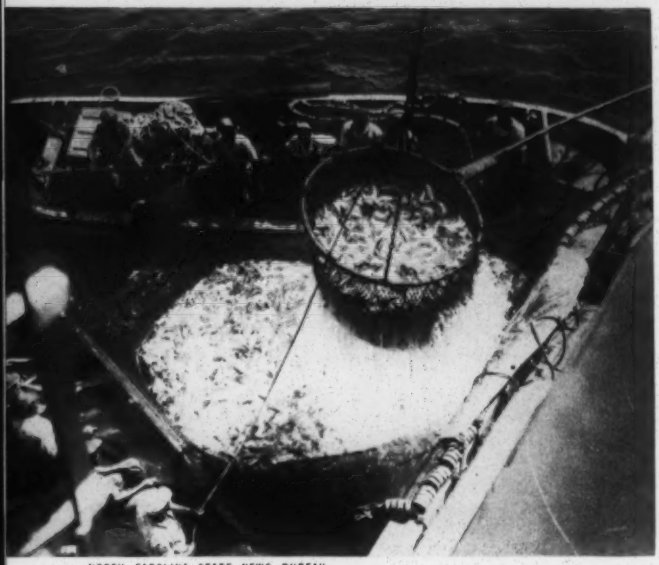
You could go on—finding passage to Texas if you want. But you have proved the point. Small boats can travel a whole coast without danger along the Intracoastal Waterway. One man made it in a 17-foot canoe.—S.H.

SAFE HAVEN—Bahia-Mar marina has room for 450 boats at Fort Lauderdale, Florida

LAURENCE LOWRY, RAPHO-GUILLUMETTE

routes merge near Fort Raleigh National Historical Site, southwest across Roanoke Sound from the dunes of Kitty Hawk where the Wright Brothers soared.

You thread North Carolina's hack-sawed inner coast, protected by land from Pamlico Sound, which itself is shielded from Hatteras's rough water by the Outer Banks. Your boat splashes down wide Neuse River, near the Cherry Point Marine Corps Air Station, turns into narrow waters for Beaufort Inlet, then



NORTH CAROLINA STATE NEWS BUREAU

HIGH-PROWED FISHING vessels you pass just off the Carolinas are probably out after the menhaden, little known but commercially valuable fish. It outranks other American fish in tonnage caught. Its oil goes into soap, linoleum, varnish. It helps temper steel. Here giant dipper scoops silvery menhaden from purse net into vessel's hold.

tucks away behind a finger of land, heading south for Wilmington and Southport, just inland from Cape Fear. You drop anchor for a bird watch. Ibis and six kinds of heron enliven the shore lines.

From Southport, your craft eases along rivers, creeks, and dredged cuts, bordered by South Carolina's palmetto-shaded lowlands and marshes. Deep South landscapes start forming beside your waterway between Myrtle Beach and Charleston. Dorothea and Stuart E. Jones describe the area in a waterway story, "Slow Boat to Florida," in the January issue of the *National Geographic Magazine*. ". . . We passed close to the many swampy islands that make up the 34,645-acre Cape Romain National Wildlife Refuge. Thousands of egrets and ibises share the refuge with many other kinds of birds. As elsewhere along the waterway, there was almost always in view a great blue heron, the 'po' joe' of the Southland, patiently stalking its prey in the reeds.

"As we passed Fort Moultrie and entered spacious Charleston Harbor, the brick walls of historic Fort Sumter lay ahead and to port. It seemed a small and modest installation to have been the starting point of so great a conflict as the Civil War."

From Charleston, the waterway meanders along a chopped coast past Beaufort and the Marines' Parris Island. You cross into Georgia at Savannah, then duck behind sentrylike islands hugging the coast. Jekyll Island—one-time retreat of prominent men—boasts a link with science. On January 25, 1851, Dr. Alexander Graham Bell carried on the world's first transcontinental telephone conversation. Though he spoke from New York to San Francisco, 1,000 miles of additional wire were strung to little Jekyll Island to enable Theodore N. Vail,

Florida's Corkscrew Swamp

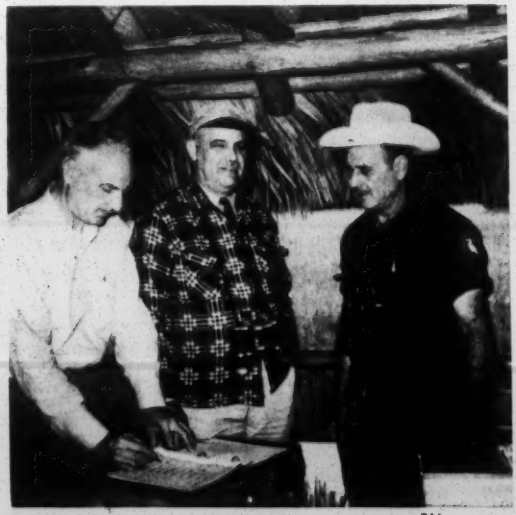
Ghostly Spanish moss drapes an eternity of stillness in Florida's Corkscrew Swamp. Then the hoarse bellow of an alligator in the swamp's inky depths shatters the silence. A blue heron calls from the shadows, the wailing limpkin voices a weird cry, and the prothonotary warbler adds its *sweet! sweet!*

Floating serenely above ferns and lily pads, a snowy white egret disappears in the orchid-decked crown of a 700-year-old cypress tree.

Now an Audubon Society sanctuary, this true "forest primeval," just 25 miles southeast of Fort Myers, waits to be explored by 20th century visitors. A sturdy boardwalk leads for half a mile into the swamp's heart. From here, anyone can observe the mysteries of a wildlife wonderland.

MELVILLE BELL GROSVENOR

ANNE REVIS GROSVENOR



Among Corkscrew's first visitors, Dr. Melville Bell Grosvenor, left, President of the National Geographic Society, and Mr. John H. Baker, center, President of the National Audubon Society, sloshed through marsh three years ago. Returning recently, Dr. Grosvenor found that the boardwalk had made visiting Corkscrew Swamp easy as child's play. This winter thousands of casual visitors, including many children, are exploring the green maze in safety. Tours are arranged by contacting the Audubon Society's Miami office.

Dr. Grosvenor writes a color-illustrated report on Corkscrew Swamp in the January, 1958, *National Geographic Magazine.*